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CLAIMS:

1.   An apparatus for detecting voice activity in a communication signal, said apparatus comprising:

a)   .   filter means for performing an estimation or a suppression of an offset component of the level of said communication signal;

5   b)   parameter control means (46) for controlling a filter parameter of said filter means based on an output of said filter means; and

c)   limitation means (16; 35, 39) for limiting said suppression or said estimation of said offset component in response to said output of said filter means.

10   2.   An apparatus according to claim 1, further comprising level calculation means (42) for calculating a short-term level of said communication signal, and voice activity control means (48) for comparing input and output levels of said filter means.

3.   An apparatus according to claim 1 or 2, wherein said offset component is a
15   noise floor component of the level of said communication signal.

4.   An apparatus according to any one of the preceding claims, wherein said filter means comprises a notch-type filter with a notch at zero frequency, and said limitation means comprises a non-linear element (16) with a limitation characteristic for suppressing
20   transmission of negative signals through the recursive path of said notch-type filter.

5.   An apparatus according to any one of claims claim 1 to 3, wherein said filter means comprises a low-pass filter for extracting said offset component, and said limitation means (35, 39) comprises comparing means (39) for comparing said extracted offset
25   component with said communication signal and switching means (35) for selecting one of said extracted offset component and said communication signal in response to an output of said comparing means (39).

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6.   An apparatus according to any one of the preceding claims, wherein said parameter control means (46) are adapted to set said filter parameter to a first value which leads to a lower tracking speed of said estimation, if the level of said communication signal falls below the level of said estimated offset component, and to set said filter parameter to a

5   second value which leads to a higher tracking speed of said estimation, if the level of said communication signal is higher than the level of said estimated offset component.

7.   An apparatus according to claim 6, wherein said parameter control means (46) is adapted to apply an exponential adaptation of said filter parameter within the limitation of

10   predetermined parameter values.

8.   A method of detecting voice activity in a communication signal, said method comprising the steps of:

a)   filtering an offset component of the level of said communication signal;

15   b)   controlling a filter parameter used in said filtering step, based on the result of said filtering step; and

c)   limiting said filtering step in response to the result of said filtering step.

9.   A method according to claim 8, wherein said filtering step is adapted to

20   suppress said offset component by applying a filter characteristic with a notch at zero frequency, and said limitation step is performed by applying a limitation characteristic for suppressing transmission of negative signals.

10.   A method according to claim 8, wherein said filtering step is adapted to extract

25   said offset component, and said limitation step comprises the steps of comparing the extracted offset component with the level of said communication signal and selecting one of said extracted offset component and said level of said communication signal in response to the comparing result.